College Algebra Unit Exam Support Pages

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Course # _____ Section # _____ Unit Exam # _____

For more space, use a second (or even a third) block and number it using b, c, d, etc. EX: #1b

1

$V = \frac{b}{2a}$ $\frac{-(-6)}{2(1)} = \frac{6}{2} = 3$

$y = x^2 - 6x + 11$

$F(3) = (3)^2 - 6(3) + 11$

$9 - 18 + 11$

$-9 + 11$

$(3, 2)$

$F(4) = (4)^2 - 6(4) + 11$

$= 3$

$F(5) = (5)^2 - 6(5) + 11$

$= 6$

Answer:

3

$F(x) = (x-8)(x-5)(x+4)(x+9)(x-1)$

Not this

Answer:

4

$F(x) = 4x^2 - 48x - 38$ $V = -\frac{b}{2a}$

$\frac{-(-48)}{2(4)} = \frac{48}{8} = 6$

$f(6) = 4(6)^2 - 48(6) - 38$

$F(6 = -182$

Answer:

4

↗ = odd $x > 0$

↙

Answer:

9

$g(x) = x^2 + 10x + 21$

$\frac{-10}{2(1)} = \frac{-10}{2} = -5$

$g(x) = (x+5)^2 - 4$

$g(x) = -5^2 + 10(-5) + 21$

$25 - 50$

$-25 + 21$

$(-5, -4)$

$g(x) = x^2 + 10x + 21$

$(x + 7)(x + 3)$

$x = -7, -3$

$g(0) = 0^2 + 10(0) + 21$

$1 + 21$

$(0, 22)$

Answer:

9

$g(-2) = (-2)^2 + 10(-2) + 21$

$4 - 20 + 21$

$4 + 1$

5

Answer:

10

$m(x) = 9x^6 + 21x^3 + 7x^2 - 6$

$(9x^6 + 21x^3)(7x^2 - 6)$

$3x^3(3x^3 + 7x)$

$(3x^2 \quad 7)(x \quad 1)$

$-7x$

$3x^2$

Answer:

11

$F(x) = 16x^3 - 56x^2 + 65x - 25$

$8x^2(2x - 7) + 5(13x - 5)$

$8x^2 = 0$

$\frac{8}{8} \quad \frac{0}{8}$

$\sqrt{x^2} = \sqrt{0}$

$\boxed{x = 0}$

$5 \neq 0$

$13x - 5 = 0$

$+5 \quad +5$

$x = \frac{5}{13}$

or

$2x - 7 = 0$

$+7 \quad +7$

$\frac{2x}{2} = \frac{7}{2}$

$\boxed{x = \frac{7}{2}}$

$65x - 25 =$

$x = \frac{25}{65} = \frac{5}{13}$

Answer:

15

$F(x) = x^4 - 2x^3 - 8x^2$

$x^2(x^2 - 2x - 8)$

$(x + 2)(x - 4)$

$2x$

$4x$

$x = 0, x = -2, x = 4$

Answer:

16

$V = -\frac{b}{2a} = \frac{-(2.592)}{2(-0.025)} = \frac{-2.592}{-0.05}$

51.84

$m_x = -0.025(51.84)^2 + 2.592(51.84) - 35.026$

$m(51.84) = 32.15864$

Answer:

17

$m(x) = (3x^3 - x^2)(-33x + 11)$

$x^2(3x - 1)11(-3x + 1)$

$x = 0, \frac{1}{3}, -\frac{1}{3}$

Answer:

18

$F(x) = x^3 + 216$

a) $6 \mid 1 \quad 0 \quad 0 \quad 216$

$\quad\quad 6 \quad 36 \quad 216$

$1 \quad 6 \quad 36 \quad 0$

$-6 \mid 1 \quad 0 \quad 0 \quad 216$

$\quad\quad -6 \quad 36 \quad -216$

$1 \quad -6 \quad 36 \quad 432$

Answer:

#

Answer:

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Answer: